



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,038	05/15/2001	Andrew Chang	FOUND-0004	7958
33707	7590	10/04/2006	EXAMINER	
FOUNDRY NETWORKS, INC. 4980 GREAT AMERICA PARKWAY SANTA CLARA, CA 95054			TRAN, THIEN D	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/855,038

**Applicant(s)**

CHANG ET AL.

**Examiner**

Thien D. Tran

**Art Unit**

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 50-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26-30 is/are allowed.
- 6) ☒ Claim(s) 1,5,13,14,16,20-22,25,31,50 and 52-66 is/are rejected.
- 7) ☒ Claim(s) 2-4,6-12,15,17-19,23,24 and 51 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 7/24/06, 7/10/06.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5, 13, 14, 16, 20-22, 25, 31, 50, 52-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow et al (U.S Patent No. 5,999,528) in the view of Boyle et al (U.S Patent No. 6,831,932 B1).

Regarding claim 1, Chow discloses an interface card access 3 (backplane interface adapter), col.6 line 4, comprising:

at least one 200 M input processor (receiver) that receives cells of 200 M (narrow input cells), figure 7;

at least one multiplexer 83 (wide cell generator) that generates cells of 800 M formed super cells (encoded wide striped cells), col.16 line 2, which include the data from the narrow input cells, col.15 lines 20-25; and

at least one cell core 85 (transmitter) that transmits the generated wide striped cells in multiple stripes to a switching fabric, figure 7.

Chow does not disclose cells carrying packets of data. Boyle discloses an bridge interface between a SONET and a packet networks in which the bridge receive packets 312 and reassemble these packets 312 into a SONET cells or traffic, col.8 lines 1-5.

Art Unit: 2616

Therefore, it would have been obvious to one having ordinary skill in the art to have the cells carrying packets of data in them so that two different networks, SONET and packet, can exchange data back and forth.

Regarding claim 5, Chow discloses a plurality of cell queues (stripe send queues), col.15 line 50, coupled between said at least one wide cell generator and said at least one transmitter, wherein said at least one wide cell generator stores said generated wide striped cells in said plurality of stripe send queues, figure 7.

Regarding claim 13, Chow discloses that each wide cell generator encodes one or more new wide striped cells, col.8 line 8.

Regarding claim 14, Chow discloses that each wide cell generator pre-pended routing information of the standard cell into header of the new 60 byte format cell (encodes an initial block of a start wide striped cell with initial cell encoding information), col.7 lines 55, and 56.

Regarding claim 16, Chow discloses limitation of the base claim. Chow does not disclose that the wide cell generator further distributes initial bytes of packet data into available space in said initial block of a first wide striped cell. However, Boyle discloses SPE data being concatenated with the header formed new packet header having fields in it, col.4 lines 20-33. Therefore, it would have been obvious to one having ordinary skill in the art to have the similar concatenation feature of Boyle being implemented in Chow system to have the wide cell generator further distributes initial bytes of packet data into available space in said initial block of a first wide striped cell so that new cells formed properly.

Regarding claim 20, Chow discloses limitations of the base claims. Chow does not disclose that each wide cell generator further encodes an end wide striped cell with end of packet information. Boyle discloses of the number of padding bytes used to determine the end of the packet (end of packet information). Therefore, it would have been obvious to one having ordinary skill in the art to have the end of packet information included in the wide striped cell so that the receiver knows when to terminate the decoding process of the wide striped cell.

Regarding claim 21, Chow discloses that each wide cell generator generates wide striped cells carrying 60 bytes (no more than 148 bytes of payload data), col.7 line 40.

Regarding claim 22, Chow discloses that at least one receiver that receives wide striped cells in multiple stripes from a switching fabric, the wide striped cells;

a format converter (translator) that translates said received wide striped cells to narrow input cells; and

at least one transmitter that transmits said narrow input cells to corresponding source packet processors, figure 7.

Regarding claim 25, Chow discloses that at least one receiver comprises at least one deserializer receiver; and said at least one transmitter comprises at least one serializer transmitter, col.21 lines 35-50.

Regarding claim 31, Chow discloses a backplane interface adapter comprising:  
at least one deserializer receiver that receives narrow input cells, col.21 lines 35-50;

at least one wide cell generator that generates wide striped cells data from the narrow input cells, figure 7;

at least one serializer transmitter that transmits the generated wide striped cells in multiple stripes to a switching fabric, col.21 lines 35-50;

at least one deserializer receiver that receives wide striped cells in multiple stripes from a switching fabric, the wide striped cells, col.21 lines 35-50;

a formatter converter (translator) that translates received wide striped cells to narrow cells, figure 7; and

at least one narrow cell serializer transmitter that transmits narrow cells to corresponding source packet processors, figure 7.

Regarding claim 50, Chow discloses a backplane interface adapter for interfacing with a switching fabric of a network switch, the network switch for switching packets in a network, the backplane interface adapter comprising:

at least one receiver that serially receives cells, col.21 lines 35-50, from the switching fabric via a full duplex serial link, col.6 line 35;

at least one transmitter that serially transmits cells, col.21 lines 35-50, to the switching fabric via a full duplex serial link, col.6 line 35;

wherein each said full duplex serial link is capable of handling full duplex traffic, col.21 lines 35-50, and

wherein at least some of the cells comprise in-band state information and at least one byte of a said packet, col.11 line 38.

Art Unit: 2616

Chow does not disclose the full duplex traffic having at least 2.5 gigabit/second. However, it would have been obvious to one having ordinary skill in the art to have the full duplex traffic having at least 2.5 gigabit/second because it is a design choice in order for the switching system to be used in the high-speed network.

Regarding claims 52-54, 60, 63, 66, Chow discloses that state information comprises a port destination (destination slot identifier or a source slot identifier), col.8 line 63.

Regarding claims 55, 61, 64, Chow discloses that at least some of the cells comprise the in-band state information, the at least one byte of a said packet, and in-band control information, col.11 lines 35-40.

Regarding claims 56-58, 62, 65, Chow discloses that the state information comprises payload state information that indicates a particular state of data in the cell, col.9 lines 55-65.

Regarding claim 59, Chow discloses at least some of the cells comprise the in-band state information, col.11 lines 35-40, the at least one byte of a said packet, and information indicating an end of the packet. Chow does not disclose the end of packet information. Boyle discloses of the number of padding bytes used to determine the end of the packet (end of packet information). Therefore, it would have been obvious to one having ordinary skill in the art to have the end of packet information included in the wide striped cell so that the receiver knows when to terminate the decoding process of the wide striped cell.

***Allowable Subject Matter***

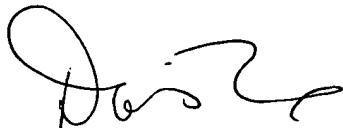
3. Claims 2-4, 6-12, 15, 17-19, 23, 24, 51 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Claims 26-30 are allowed.

***Conclusion***

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Thien Tran whose telephone number is (571) 272-3156. The examiner can normally be reached on Monday-Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To, can be reached on (571) 272-7629. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197.

  
DORIS H. TO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600



Application/Control Number: 09/855,038

Page 8

Art Unit: 2616

Patent Examiner

Thien Tran